

their occurrence in the blood of chlorotics, among others. BUTTERSACK now brings these bodies in relation with certain processes (*Zeitschrift für klin. Med.*, Bd. 33, p. 456), and although Litten in a recent article denies this, the suggestion is, nevertheless, interesting. Buttersack found the cylinders especially in chlorosis. He thinks they are formed in the capillaries, constituting thrombi, which can, however, be washed through into the distal blood by forcible currents. They do not, therefore, produce gross lesions, but rather disturbances of the finer nutritive processes. He explains some of the symptoms of chlorosis which have usually been ascribed to oligochromæmia, to such thrombi, but his chief reason, the disappearance of the symptoms under excitement, could as well apply to increased vascular turgor without previous thrombi. More interesting is the suggestion that gastric ulcers can be explained by such thrombi, not only as regards their origin, but also, what is more difficult to explain by former theories, their slow healing, which he looks on as an evidence of the alleged capillary thrombi. The author disclaims an intention of making the blood-cylinders pathognomonic of chlorosis.

Digestion-Leucocytosis and Cancer of the Stomach.—The claim of Schneyer (see abstract in *THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES*, April, 1895), that the absence of digestion-leucocytosis is a diagnostic sign in cancer of the stomach, has been investigated by others with results that materially weaken the earlier claim. Recently A. HOFMANN (*Zeitschrift für klin. Med.*, Bd. 33, p. 460) and T. L. CHADBOURNE (*Berliner klin. Wochenschrift*, No. 2, 1898) have independently come to the conclusion that not only may digestion-leucocytosis be present in some cases of cancer, rare, it is true, but that it may be absent in a number of other gastric diseases. Chadbourne is no doubt right in thinking the examination may be of some assistance in obscure cases. He thinks the presence or absence depends on the condition of the gastric mucous membrane. Hofmann found no relation between digestion-leucocytosis and anacidity, either in cancer or other diseases, nor was cachexia a constant factor. Cancer as such has no effect, and he inclines to the belief that all organic changes in the digestive tract that affect absorption come into play.

Mixed Infection in Pulmonary Tuberculosis.—SCHABAD, working under the direction of Afanassiew, furnishes an important contribution to this subject, so closely connected with the active exploitation of specific remedies for tuberculosis at this time (*Zeitschrift für klin. Med.*, Bd. 33, p. 466). A full and competent review of the previous literature is given, though we miss a reference to the important work of Prudden on the influence of mixed infection in the experimental production of cavities. The investigation proper included the clinical study of the cases, the bacteriological examination of sputum and blood during life, and of the organs post mortem. Much attention was given to the study of the streptococci of the mucous membranes. Failure to examine these fully led some of the earlier workers into error. In all thirty-one cases were examined clinically, and seventeen of these also post mortem. We must content ourselves here with the author's conclusions: 1. By mixed infection in tuberculosis should be understood cases in

which the associated bacteria are in the lung-tissue (alveoli or capillary bronchi) or in the blood. 2. The finding of pathogenic bacteria in sputum (Kitasato's method), even in pure culture, does not suffice to prove a mixed infection. Experience shows that these bacteria, the pyogenic streptococci excepted, do not all come from the lung. 3. It is very important not to confuse the pyogenic streptococci with the streptococci of the mucous membranes. These resemble the former, but differ essentially in biological character and in the absence of pathogenicity. The mucous membrane streptococci are harmless parasites, but the genuine pyogenic streptococci are of grave prognostic importance, as they cause the larger proportion of all mixed infections in tuberculosis. 4. Rarer than streptococcus infection is that with tetragenous cocci and pneumococci, or double infections with one of these and staphylococci. 5. Secondary infection usually complicates the later stages of tuberculosis, and rapidly causes a fatal outcome. It is so common that almost all cases that come to autopsy show it. 6. The importance of secondary infection in the pathological process consists in this: that it either takes part in the pneumonic process always present in tuberculosis, or if not actually the cause of exudation, exerts an influence on the general condition of the patient and on the fever by the toxins, and also assists in cavity-formation. It can also cause fatal septicæmia. 7. There are undoubted cases of tuberculosis that show all the symptoms of the hectic stage, and end fatally, without the action of any other organism than the tubercle bacillus. 8. Uncomplicated, progressive pulmonary tuberculosis is characterized by hectic fever of inverse type. In mixed infection with streptococci the typical curve is rarely observed, the temperature being usually remittent or approaching the continued type. 9. Normal temperature characterizes the stationary uncomplicated tuberculosis. Mixed infection with normal temperature is not very probable.

Lesion of the Conus Terminalis.—H. LABIN (*Wiener klin. Wochenschr.*, 1898, No. 10) reports the following: A man of fifty-five years fell from a wagon, a distance of about a metre, striking on the back. At once he felt severe pain in the back and was unable to rise. The whole body "felt as if dead." There was retention of urine and feces, lasting for five days. The paralysis lasted a week. Examination soon after showed no alteration in the eyes (the visual field not lessened); no pain in the spine; no atrophy nor loss of sensibility of the upper extremities, but loss of strength there, increased reflexes, and in the deltoids fibrillary contractions. In the legs passive motion was normal, the muscles weak, the tendon reflexes much exaggerated, the plantar reflex abolished, the cremasteric, abdominal, and other skin and mucous membrane reflexes intact. Sensation was preserved in all parts of the lower extremities, but there was a striking alteration of the temperature and pain senses. This was largely localized to both feet above the malleoli, higher right than left, the middle and lower half of the lateral thirds of the calves, the lateral thirds of the thighs, the nates and sacral regions, the inner and middle gluteal, the anal, perineal, posterior scrotal regions, and all the surface of the penis. Hot and cold test-tubes could be recognized only by the touch, and differences of five to fifteen degrees [Cent. ?] could not be differentiated or localized. Sensibility to pain was absent in the same areas.